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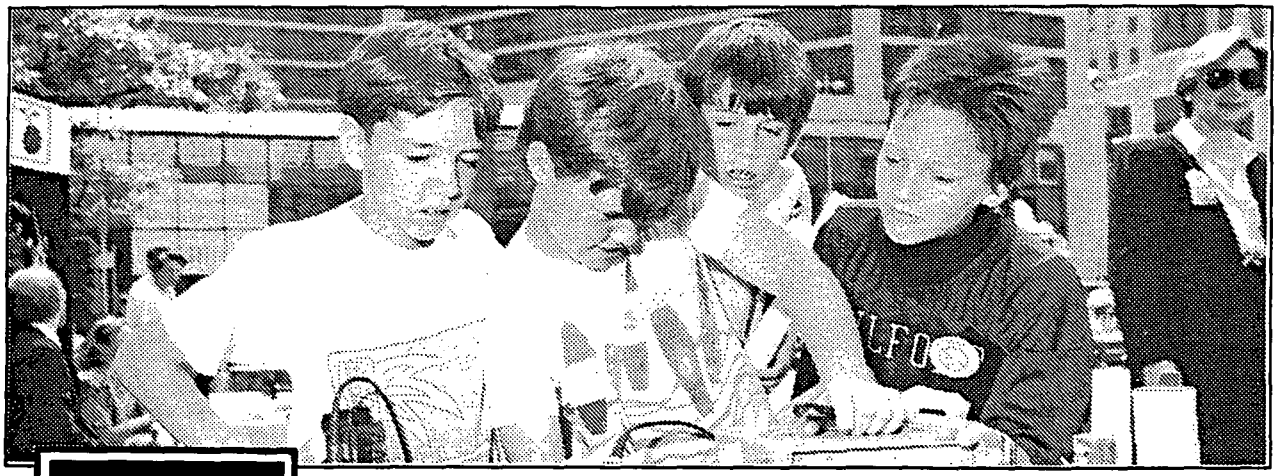
MISCELLANEOUS HANDOUTS COMMUNITY MEETING JULYM21, 1992

DOE-FN PUBLIC
8
HANDOUT

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
Educational Outreach - Student Programs



The U.S. Department of Energy (DOE) at the Fernald Environmental Management Project (FEMP) offers a variety of programs, activities, and approaches to help motivate local students during their precollege years to pursue mathematics, science and technology careers. The DOE is committed to developing and implementing programs to aid future generations in meeting the environmental challenges at the FEMP. In the short-run, the FEMP is striving to heighten interest and increase awareness of the challenges facing the Fernald Site. The long-range goal is to promote a scientifically-literate work force capable of developing the technologies for environmental restoration and waste management. The technologies developed will ultimately be used at the FEMP, as well as other DOE Superfund sites. The mission of all FEMP precollege educational programs is to educate local students about the Fernald Site, and to give them insight on a career in the environmental field.

The student programs developed and funded by the FEMP include:

Partnership In Education - The Partnership In Education Program employs hands-on activities to stimulate interest in math, science, and technology. This program is targeted toward 6th, 7th and 8th grade students. Now in its fifth year, the Partnership Program has been offered at five local elementary and middle schools. Employee volunteers from the FEMP work with students on programs ranging from astronomy to recycling.

National Engineers Week - The FEMP recognizes and supports National Engineers Week and local science fairs each year. Engineers visit schools to speak one-on-one with students about careers in engineering, answer questions and dispel the stereotypical engineer image.

Inroads Program - This is a national educational program designed to provide talented minority high school seniors who are interested in a technical career with the opportunity to work in a professional business environment. As a participant, the FEMP pays a fee to sponsor one minority student per year. To be eligible for this program, students must have a GPA of 3.0 and interview at the FEMP. Upon acceptance, the student will return to the Fernald Site as an

intern each summer throughout his or her college career. In addition, weekend training courses are offered to help these young people become better workers and students.

Host Field Trips and Tours - Local high school students are invited to visit the Fernald Site to become more aware of environmental monitoring and environmental restoration activities.

Greater Cincinnati Regional Science Bowl - This academic competition was developed by DOE to recognize the hard work and dedication of the best senior high students in the areas of mathematics and science. The competition consists of oral question-and-answer rounds in which one team tries to outscore another. Regional competitions are sponsored by DOE facilities around the country. Each regional winner competes in the national competition in Washington D.C.

Student Education Collaboration

To leverage its financial and manpower resources to the greatest extent, the DOE encourages and supports collaborations with universities, industry and organizations committed to improving science education and literacy. The FEMP provides financial support, technical mentors and speakers to veteran programs, including:

* Super Saturday Science
* Science, Technology, Environment and Me Camps (STEM)
* Minorities for Math, Science and Engineering (M^2SE)
* New Explorers (Cincinnati Zoo)

Fernald Environmental Management Project

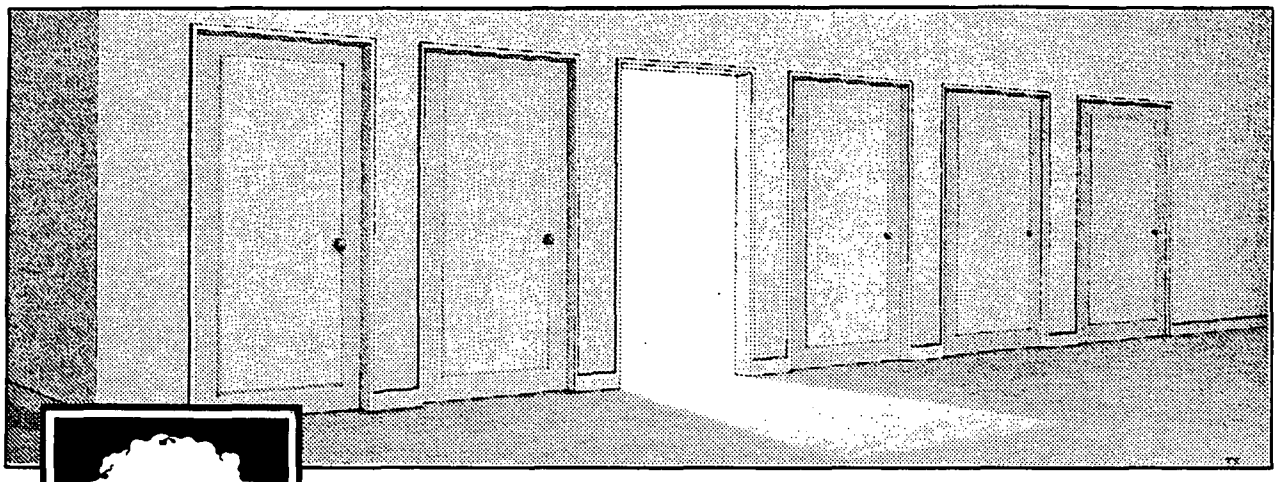
For more information, please contact The Fernald Environmental Management Project, Educational Outreach (513) 738-9314, P.O. Box 398704, Cincinnati, Ohio 45239-8704

The Department of Energy supports the national education goals established by "America 2000, An Education Strategy", and the objectives of the Federal Coordinating Committee Science, Engineering and Technology. Those objectives include:

- *Improving science and mathematics performance of students*
- *Developing a strong precollege teacher workforce*
- *Ensuring an adequate pipeline for science and technology workforce, including increased participation of underrepresented groups*
- *Improving science literacy in the general population*

FEMP Graphics #1711B1.PM

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
Educational Outreach - College/University Programs



In order to remain at the cutting edge of technology, the U.S. Department of Energy (DOE) at the Fernald Environmental Management Project (FEMP) is doing all it can to ensure that future generations have the opportunity to gain valuable work experience, continue their education and become responsible members of society.

The FEMP is involved in student programs designed to integrate a student's academic and career interests with productive work experience in industry. Through this interaction, students enhance their academic knowledge, persist in the continuation of their education, and improve their personal and professional development.

As a result of the student programs, the FEMP has been able to recruit exceptionally qualified candidates for full time employment. Today's students will eventually be responsible for carrying on the environmental restoration effort currently underway at the FEMP and other Superfund sites.

Following are the college programs offered at the FEMP:

Cooperative Education Program - The FEMP began participating in Co-Op Programs in 1988 with the University of Cincinnati. The program has been expanded to include other local universities. Students work in areas related to their studies, and alternate work and school sessions as required by their academic program. The Co-Op Program offers an excellent resource for potential full time employees.

Historically Black Colleges and Universities Program (HBCU) - The HBCU Program offers summer internships to minority college students enrolled at Central State University, Kentucky State University or Norfolk State University. The program gives students the opportunity to gain practical work experience to be better prepared for the business environment as well as a chance to earn money for their college education. To qualify, students must be entering their junior year of college and maintain a 2.7 GPA. In addition to the internships, the FEMP provides funding for grants, scholarships and technical support to improve the quality of education at the HBCU universities. The Department of Energy has recognized the FEMP's HBCU Program as one of the nation's best.

Intern Program - Internships are offered to students pursuing degrees in specific disciplines related to the work currently being performed at the FEMP. Programs at local universities/ colleges are utilized as well as universities having unique programs. Two universities having unique programs are the University of Oklahoma for Fire Protection and Safety Engineering and the University of Findlay for the hazardous Waste Management Program. These two programs are the only ones offered in the nation.

Graduate Assistants - This program was created to give students who possess their undergraduate degrees the opportunity to gain practical experience in their field while continuing their education in pursuit of a graduate degree. Graduate Assistants specializing in law, environmental sciences, engineering and mass communications have been employed at the FEMP.

Inroads Program - Inroads is an organization which develops and places talented African American, Hispanic and Native American youth in business and industry and prepares them for corporate and community leadership. Inroads seeks to increase business career opportunities and knowledge for minorities while giving corporations the opportunity to develop future managerial talent. Participation begins in the tenth or eleventh grade with extensive counseling and guidance as the student progresses through the program.

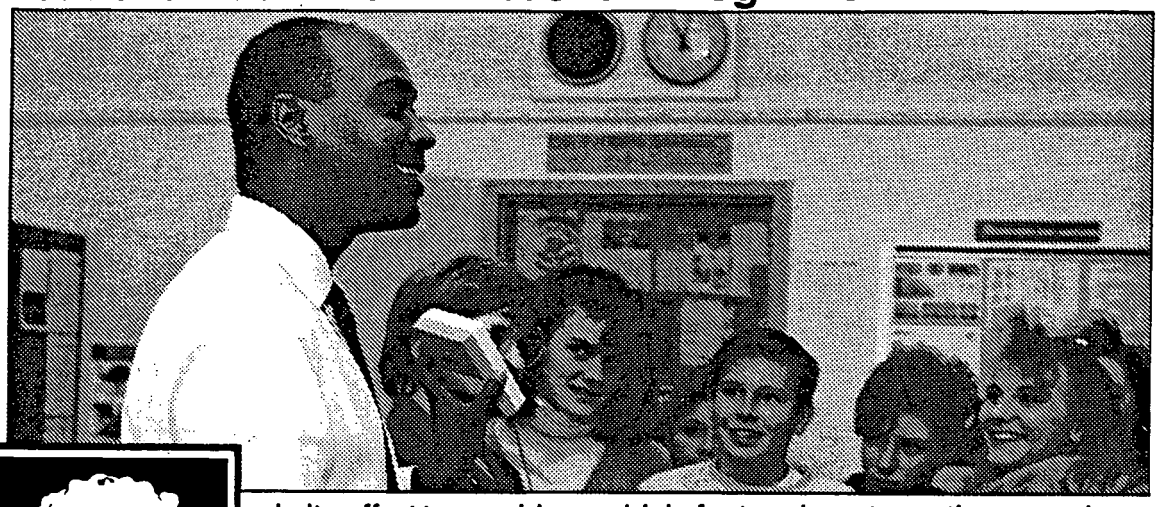
Higher Education Outreach Program - Through the Society of Women Engineers, the Higher Education Outreach Program (HEOP) was begun in 1989 with a group of minority female eighth grade students who displayed an aptitude for math and science. In 1992, the program is being expanded to include summer internships. WEMCO will be supporting the program by employing one or two of the students during the summer of 1992.

Fernald Environmental Management Project

For more information, please contact the Fernald Environmental Management Project, Human Resources Department, P. O. Box 398704, Cincinnati, OH 45230-8704, (513) 738-6831.

FEMP Graphics #1711B4.PM4

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
Educational Outreach - Teacher Programs



In its effort to provide a vehicle for teachers to motivate students, the U.S. Department of Energy (DOE) at the Fernald Environmental Management Project (FEMP) offers many programs and activities designed to increase precollege (K-12) teachers' awareness and understanding of environmental restoration techniques. By increasing the knowledge and heightening the interest of teachers, the FEMP hopes to create a more positive learning environment for students. In addition, teachers who are interested in working and learning more about the environmental arena are encouraged to do so. The FEMP, through outreach programs, has been successful with its different teacher-assisted learning programs in the past, and would like to offer more programs in the future. The long-range goal of this program is to help both teachers and students understand the challenges of environmental restoration through hands-on training, financial assistance, and observation.

The goals of the teacher programs include exciting teachers about Math Science and Technology, enhancing their knowledge and understanding of career opportunities available in these areas for future generations. Some of the teacher programs are:

Teachers at Federal Facilities - The purpose of this program is to offer local science and/or math teachers an opportunity to work in a challenging technical environment. Teachers, through 4 to 8 week summer assignments, learn about the environmental restoration field and discover new career opportunities to communicate back to their students. This teacher-based educational outreach program was first offered at the FEMP in 1991.

Shadowing Program - The purpose of this program is to have a local teacher spend a day at the Fernald Site sharing a "normal" workday with a professional. Teachers get an opportunity to experience working in an industrial environment, so they can better understand their role in preparing students to meet industry's needs in the future.

Seminars for Teachers - Under this program, selected regional teachers would attend summer sessions to provide educational peer review of various programs. By improving the

knowledge of teachers in specific fields, information can be passed to students to heighten their interest and performance.

Teachers Research Associates Program - Through this national DOE program, middle or high school teachers are placed in DOE facilities for a summer to participate in research and hands-on science application. Nominees are selected by education program coordinators at each DOE facility, based on their experience, training and interest. The experience gives teachers an opportunity to apply what they learned to their classrooms.

FEMP Education Donations Program - This program provides financial support to teachers and educators for small day-to-day educational events, projects, and/or programs that improve science and mathematics performance. Under this initiative, special consideration is given to programs which also provide environmental awareness and improve environmental literacy. This precollege educational program includes requests made to DOE/FEMP, contractors and/or principal subcontractors. Requests are evaluated to ensure an equitable distribution of money to schools in the local community.

Speakers Bureau - The Speakers Bureau program includes DOE and FEMP contractor personnel. Presenters talk about a variety of career opportunities and environmental issues to both teachers and students.

Teacher Education Collaboration

To leverage its financial and manpower resources to the greatest extent, the DOE encourages and supports collaborations with universities, industry and organizations committed to improving science education and literacy. The FEMP provides financial support, technical mentors and speakers to veteran programs, including:

* Chemical Education for Public Understanding Program (CEPUP)
* Partners for Terrific Science

Fernald Environmental Management Project

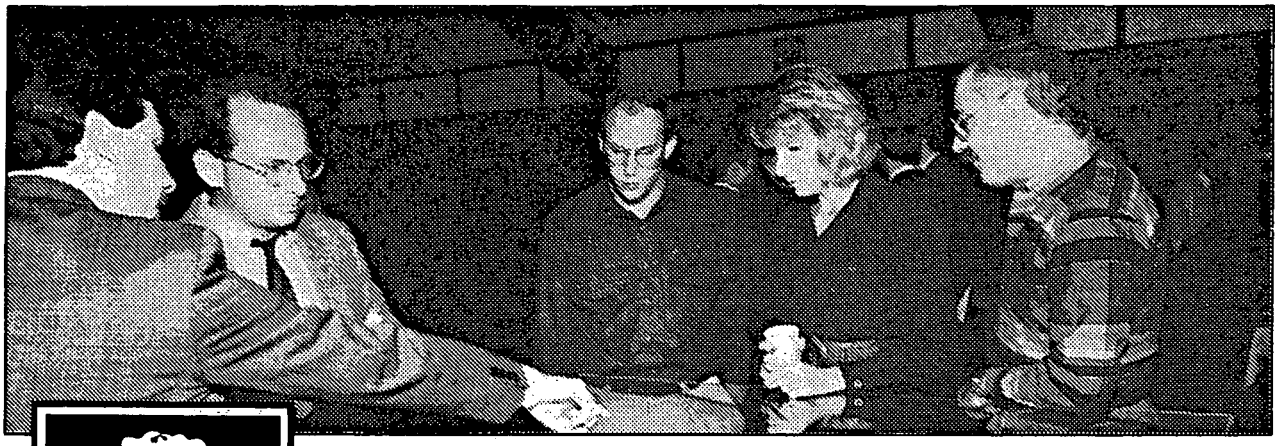
For more information, please contact The Fernald Environmental Management Project, Educational Outreach (513) 738-9314, P.O. Box 398704, Cincinnati, Ohio 45239-8704

The Department of Energy supports the national education goals established by "America 2000, An Education Strategy", and the objectives of the Federal Coordinating Committee Science, Engineering and Technology. Those objectives include:

* *Improving science and mathematics performance of students*
* *Developing a strong precollege teacher workforce*
* *Ensuring an adequate pipeline for science and technology workforce, including increased participation of underrepresented groups*
* *Improving science literacy in the general population*

FEMP Graphics #1711B2.PM4

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
Educational Outreach - Training Programs



The U.S. Department of Energy (DOE) at the Fernald Environmental Management Project (FEMP) offers different courses and training programs to its employees and to community residents. The goal is to increase community awareness and keep FEMP employees among the best trained in the industry. Interested and concerned community residents have attended some of these courses to gain both knowledge and an understanding of what the FEMP is striving to accomplish. Many of the below mentioned courses were designed and initiated at the FEMP. The mission of community and employee education programs is to educate FEMP personnel and area residents in environmental restoration processes, encourage active participation in decision-making processes, and increase community understanding of the environment, safety, and health issues at the Fernald Site.

Following are some of the FEMP personnel training programs:

Compliance Training - The Superfund Amendment and Reauthorization Act (SARA) and Occupational Safety and Health Administration (OSHA) Compliance Training conducted at the FEMP prepares hazardous waste personnel to maintain and operate the facilities at Fernald in a safe, efficient, and environmentally sound manner. The program emphasizes compliance with the U. S. EPA, Ohio EPA, Department of Transportation, and OSHA regulations, as well as DOE Orders, and provides FEMP personnel with a consistent level of training to respond in a prompt and effective manner should abnormal or emergency situations occur. Specific compliance training programs include: General Safety Orientation, Portable Fire Extinguisher, You and OSHA, Radiation Safety Training, Nuclear Criticality Safety, Respirator Training, Energy Control Awareness, Compliance Training (volume I and II), and Supervised Field Experience.

DOE/Westinghouse School for Environmental Excellence - DOE and Westinghouse have developed an environmental fundamentals school to educate employees in environmental restoration and remediation. This program is offered at the six Westinghouse-operated DOE sites. The first session was conducted at Fernald in 1990. Sessions run about six weeks. Among the graduates of the second class was a member of the Fernald Residents for

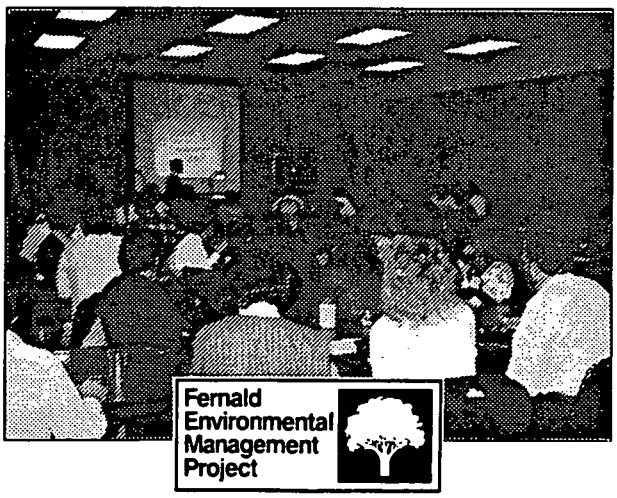
Environmental Safety and Health, a local concerned citizens group. This school is being moved offsite to Hanford, WA.

School of Applied Environmental Remediation - This program was initiated to provide hands-on training for FEMP remediation personnel in hazardous waste cleanup techniques. A graduate of this program can conceivably have 21 semester hours completed toward a 62 hour Associate Degree. Training is currently conducted at the University of Findlay's Emergency Response Training Center. Some of the specific course topics include: the "Resource Conservation and Recovery Act", the "Comprehensive Environmental Response Compensation and Liability Act", "Principles of Toxicology", the "Clean Air Act", the "Clean Water Act", the "Safe Drinking Water Act", "Environmental Regulations and Risk Assessment", and "Hazardous Materials Transportation".

Following are some of the community awareness programs offered by the FEMP:

Community Environmental Course - This program is being developed to provide an interactive learning experience for community residents. The major topics to be covered will include: air, soil and water sampling, mixed and hazardous waste issues, emergency planning and the Community Right to Know Act, and remediation of the FEMP. This program will be offered to community residents in the fall of 1992.

Speakers Bureau - The Speakers Bureau program includes DOE and FEMP contractor personnel. The main goal is to inform the public of the various restoration efforts being undertaken at the FEMP. Tours and discussions of the site are arranged to allow people to see for themselves the progress that has been made. A future area of emphasis for the Speakers Bureau will be on school visits.



For more information on the above programs, please contact The Fernald Environmental Management Project, Community Relations, (513) 738-6978, P.O. Box 398704, Cincinnati, Ohio 45239-8704

FEMP Graphics #1711B3.PM4

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INITIAL COURSE OUTLINE
Community Environmental Education Course

September 15, 1992 Instructors - Lance Hall & Mike Sorg

1. Personal Protective Equipment, General Overview of Course, Expectations, Objectives and Evaluation.
2. Begin initial lecture on Personal Protective Equipment (PPE).
   - A. Protect personnel from contamination through;
     1. respiratory system
     2. skin absorption
   - B. Used to protect personnel from job hazards.
   - C. Promote work place health and safety.
3. How to select Personnel Protective Equipment
   - A. NIOSH/OSHA Occupational Safety Guides
   - B. Company health and safety plans
   - C. Field equipment;
     1. Organic vapor detectors (PIDs)
     2. Oxygen sensors for explosive limits
     3. Radiation detectors
   - D. First Responders and HAZMAT Response Teams
4. Levels of Protection, A through D.

September 22, 1992 Instructors - Andy Russell & Dave Back

1. Soil Sampling
   - A. Purpose for the ongoing soil sampling program
   - B. Review of Soil Sampling Forms
   - C. Review of the equipment used in soil sampling
   - D. Demonstrations and Preparation for taking of soil samples, Dress several students into PPE. Short Video of Sampling
   - E. Hands On Exercise
     1. Move outside and take samples (Residents with assistance)
   - F. Return inside and review Sampling forms and results of earlier samples
   - G. Pass out self test and discussion of the next weeks class

[redacted]

October 6, 1992

1. GroundWater Sampling Instructor - Mark Cherry
   - A. Overview of site geology and hydrology
   - B. Developing a groundwater sampling plan
   - C. The sampling process
     1. Methods
     2. Equipment
   - D. Sample Analysis
   - E. Data Interpretation
   - F. Reporting
   - G. Case Study and Practice Exercise
   - H. Pass out self-test and answer questions
   - I. Review of next up-coming class

October 13, 1992

1. Mixed and Hazardous Waste Issues Instructor - Dan Burns
   - A. What wastes are on site
   - B. How are these waste regulated (RCRA)
   - C. How wastes are handled on site, Storage, classification types and size of containers etc.
   - D. Types and kinds of storage containers, Drums, Overpacking Drums, Six Packs etc. (at this point it might be appropriate to have a semi-Trailer nearby loaded with a simulated shipment where the students can see and feel first hand how things are handled. We could have several models on the ground for people to view and inspect so they would better understand what it is they see leaving the plant.
   - E. Introduce and Review Placards
   - F. Review Drum Sampling (at this point we could have the students take an active participation roll and actually dress-out in PPE's and do some sampling in a controlled simulated environment.)
   - G. Review Results using the appropriate form(s).
   - H. Summarize and pass out self-test.
   - I. Review the up-coming class

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October 20, 1992 Instructors -

1. Background regarding Parsons
   - A. Multiple company program for ERA
   - B. Currently Parsons Environmental Services
   - C. Cost Proposals and Contract SOW
2. Organization for performing the SOW (functions & responsibilities)
   - A. Technical Staff
   - B. Support Staff
3. Interface Operations with WEMCO/DOE
   - A. OU Managers
   - B. WEMCO Support Groups
   - C. RMI
4. Interface with RI/FS and Removal Actions
   - A. Interactions
     1. Site Characterizations
     2. Treatability Studies
     3. Technology Demonstrations
     4. Hydrogeology
     5. Work Plans
     6. Safety and Risk Assessments
     7. D & D Plans
     8. Capital Cost Estimation
   - B. Schedule Needs (RI/FS Process and CDRs)
5. Project Orders
   - A. Process for Approvals
   - B. Current Status
6. Project Controls/Reports
   - A. CSCSC/Earned Value
   - B. Monthly Status Reports/Invoices
   - C. Meetings/Telecons
7. Deliverables
   - A. Types & quantities to date
   - B. Future requirements

[redacted]

October 27, 1992 Instructors - Patricia Kraps

1. Air Monitoring (this was moved to this time slot in hopes of providing warm weather for the above sessions)
   - A. Purpose for air monitoring at FEMP
     1. Map w/locations
     2. Meteorological considerations
   - B. Different types of air monitoring systems
     1. Personal air monitors for room/work conditions
     2. Ambient air monitors for environment
   - C. Monitoring Process
     1. High volumn air monitors & how they work
     2. Filer exchange
   - D. Sample analysis: parameters
   - E. Data interpretation: dose
   - F. Data reporting: Annual Site Environment Report
   - G. Pass out self-test and questions/answers
   - H. Review the next class

November 10, 1992 Instructor - Johnny Reising

1. Remediation of the site
   - A. Regulatory Drivers
     1. CERCLA, NCP, Consent Agreement, RCRA, NEPA, DOE Orders, OSHA
   - B. The CERCLA Process
     1. RI/FS ROD
     2. RD/RA
   - C. Potential Remedial Methodologies
     1. Solidification/Cementation
     2. Stabilization
     3. Vitrification
     4. Incineration
     5. Soil Washing

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6. Waste Water Treatment
7. Decontamination/Decommissioning

November 17, 1992

1. Emergency Planning and the Community Right to Know Act

Instructor - Gene Peak & Sharon Cornwell

A. Site Plans and Equipment
B. Public Warning System
C. Provisions of the Right to Know Act and the MSDS Concept
D. Where the Public can obtain Right to Know Information
E. Emergency Planning Updates

EM PUBLIC PARTICIPATION CONSOLIDATED CALENDAR

F E M P						
Program						
Community Meetings	July 21	7 p.m. at The Plantation			November 10	7 p.m. at The Plantation
Community Roundtable	August 10	Engineered Waste Management Facilities	September 21	The new ERMC	TBD	By Public's Request
			October	Pre-College Education Programs		
Township Meetings	Second and Last Monday each month	Crosby Township 7:30 pm Civic Center	Second and Last Monday each month	Crosby Township 7:30 pm Civic Center	Second and Last Monday each month	Crosby Township 7:30 pm Civic Center
	August 5	Special Crosby Township Meeting on Public Water - 7:30 Crosby Elementary				
	Third Tues. each month	Ross Area Merchants Assoc., 7:00 pm - Venice Castle	Third Tues. each month	Ross Area Merchants Assoc., 7:00 pm - Venice Castle	Third Tues. each month	Ross Area Merchar Assoc., 7:00 pm - Venice Castle
	First and Third Thurs each month	Ross Township 7:00 pm Ross Fire House	First and Third Thurs. each month	Ross Township 7:00 pm Ross Fire House	First and Third Thurs each month	Ross Township 7:00 pm Ross Fire House
Neighborhood Group - FRESH	Fourth Thurs each month	7:30 pm Venice Presbyterian Church	Fourth Thurs each month	7:30 pm Venice Presbyterian Church	Fourth Thurs each month	7:30 pm Venice Presbyterian Church

EM PUBLIC PARTICIPATION CONSOLIDATED CALENDAR

F E M P

Program						
Public Participation Plan Workshop	August 3	Site Specific Plan 7pm, ERA Alpha Bldg.				
	August 3	Five-Year Plan (FY 94-98) 7pm, ERA Alpha Bldg.				
Community Environmental Course			September 15	Personal Protective Clothing, 7:00 pm ERA Alpha Bldg.	November 10	Remediation of the Site, 7:00 ERA Alpha Bldg.
			September 22	Soil Sampling 7:00 pm - ERA Alpha Bldg.	November 17	Emergency Plan. and Community Right to Know Act
			October 6	GroundWater Sampling 7:00 pm - ERA Alpha Bldg.		
			October 13	Mixed and Hazardous Waste Issues, 7:00 ERA Alpha Bldg.		
			October 20	Parsons Role in Remediation, 7:00 pm ERA Alpha Bldg.		
			October 27	Air Monitoring, 7:00 ERA Alpha Bldg.		

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EM PUBLIC PARTICIPATION CONSOLIDATED CALENDAR

F E M P

Program						
Newsletters/Fact Sheets (Two weeks before each Community Meeting)	July 10	Fernald Project Cleanup Report	October	Fernald Project Cleanup Report		
Speakers Bureau			October 14	Presentation to Sharpsburg Primary School		
Contacts: Sue Peterman Dept. of Energy 513-738-6697 Pete Kelley Westinghouse 513-738-6644						

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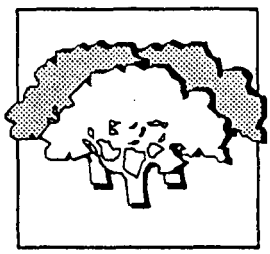
ENVIRONMENTAL RESTORATION AND WASTE MANAGEME[redacted]

Five-Year Plan for Fiscal Years 1993-1997

In September 1991, the U.S. Department of Energy (DOE) issued the Environmental Restoration and Waste Management (EM) Five-Year Plan for FY 1993-1997. First published in August 1989 and updated annually, EM's Five-Year Plan reflects DOE's commitment to an open culture — one of more openness and public involvement in decisionmaking and policy direction — dedicated to the restoration of the Nation's environment. The first Five-Year Plan outlined DOE's goal to bring all operating facilities into compliance with applicable laws and regulations and to cleaning up the 1989 inventory of contaminated inactive sites and facilities by the year 2019. The current FY 1993-1997 Five-Year Plan moves EM one step closer to realization of this goal.



DOE's overall strategy for meeting its 30-year compliance and cleanup goal involves:

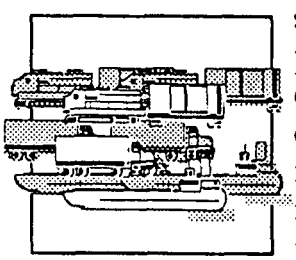
- immediately doing whatever is possible to reduce, mitigate, stabilize, and confine an actual or potential threat to human health and safety;
- if solutions are not yet available, acting decisively to develop remedies to do it right the first time; and
- when compliance and cleanup cannot wait for new technologies, planning the work to be accomplished and its schedule with affected parties and within the provisions of Interagency agreements.

This third Five-Year Plan is divided into three major sections, plus an executive summary. Section 1 contains the purpose and scope of the Plan, EM's strategic plan, an overview of 2 planning scenarios, and a description of the EM planning process. Section 2 contains the goals, objectives, accomplishments, and status for each of the five EM programs: Waste Management, Corrective Activities, Environmental Restoration, Technology Development, Transportation Management. Section 3 contains specific information about all the EM sites organized by field office, about the various technologies being developed and used to support EM activities, and about transportation activities.

EM Objectives & Accomplishments

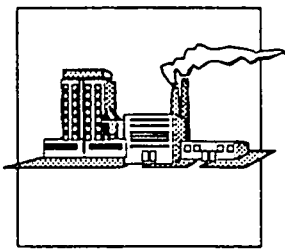
To evaluate the significance of its accomplishments, it is necessary to understand EM's approach to national planning for meeting its goals. EM's national planning focuses on completing projects relating to compliance, stabilization, reduction of near-term risk, and initiation of efforts leading to long-term or permanent solutions.

The FY 1993-1997 Five-Year Plan identifies 7 major objectives that must be achieved if EM is to accomplish its 30-year goal and summarizes major accomplishments relative to each of these objectives. These objectives and accomplishments fall into the categories of corrective activities, waste management, environmental restoration, public involvement, technology development, human resources, and management.

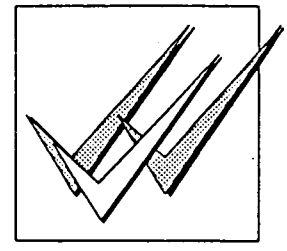


EM Program Execution

Near-Term Program Milestones: While EM has made significant progress since its creation in 1989, much effort remains before EM realizes its 30-year goal. The FY 1993-1997 Five-Year Plan includes activity and milestone charts for more than 30 installations that reflect EM's plans for achieving major cleanup and compliance objectives over a 5-year planning horizon. These charts are visual representations of the integrated effort at each site, showing interrelationships among corrective activities, environmental restoration, waste operations, and technology development. The accomplishments of these and other planned milestones will set the stage for EM activities and accomplishments well into the next century.

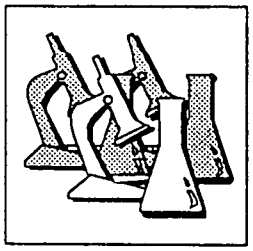


Alternative EM Program Funding Cases: Sound management requires prudent planning for fiscal and personnel resources and the development of technologies to get the job done. The first EM Five-Year Plan contained estimates of cost for FY 1991-1995. As the Plan is updated annually, so are the funding estimates. The past two Five-Year Plans have reflected significant cost increases. The FY 1993-1997 Five-Year Plan reflects an additional increase of $400 million, and much of this increase is attributed to increased responsibilities in areas not envisioned in the first Plan. However, the estimates for completing the original mission for EM show that estimates for that effort rose sharply in the second Plan but fall in this third Plan. This decrease reflects the result of a number of EM initiatives that have been undertaken to control cost growth since the second Plan was developed.



Cost Control: EM is acting on its commitment to control costs by adopting new ways to estimate and validate costs, using prioritization methodologies to manage future cost growth, working toward technology improvements to accomplish program aims more efficiently, and applying new program-level initiatives to reduce overall program costs.

Future Efforts: With critical organizational, management, and planning structures now in place, EM can take a more integrated and comprehensive look at the issues that need to be resolved to ensure the success of the program. Over the next year, "roadmaps" are being developed across EM facilities to identify and analyze issues that might impede program progress. Other program management activities include the initiation of a comprehensive system for tracking program performance.



Reinforcing DOE's Commitment

This annual update of the Five-Year Plan reinforces DOE's commitment to environmental quality and lays a solid foundation on which DOE will continue to build its environmental restoration and waste management programs. It also emphasizes the Department's many accomplishments and progress to date in this important area. The FY 1993-1997 Five-Year Plan reaffirms DOE's dual goals of achieving timely compliance with all applicable environmental requirements and of cleaning up the 1989 inventory of inactive sites and facilities within 30 years.

Copies of the EM Five-Year Plan for FY 1993-1997 are available to the public from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. The Executive Summary is available by calling (301) 903-3555.

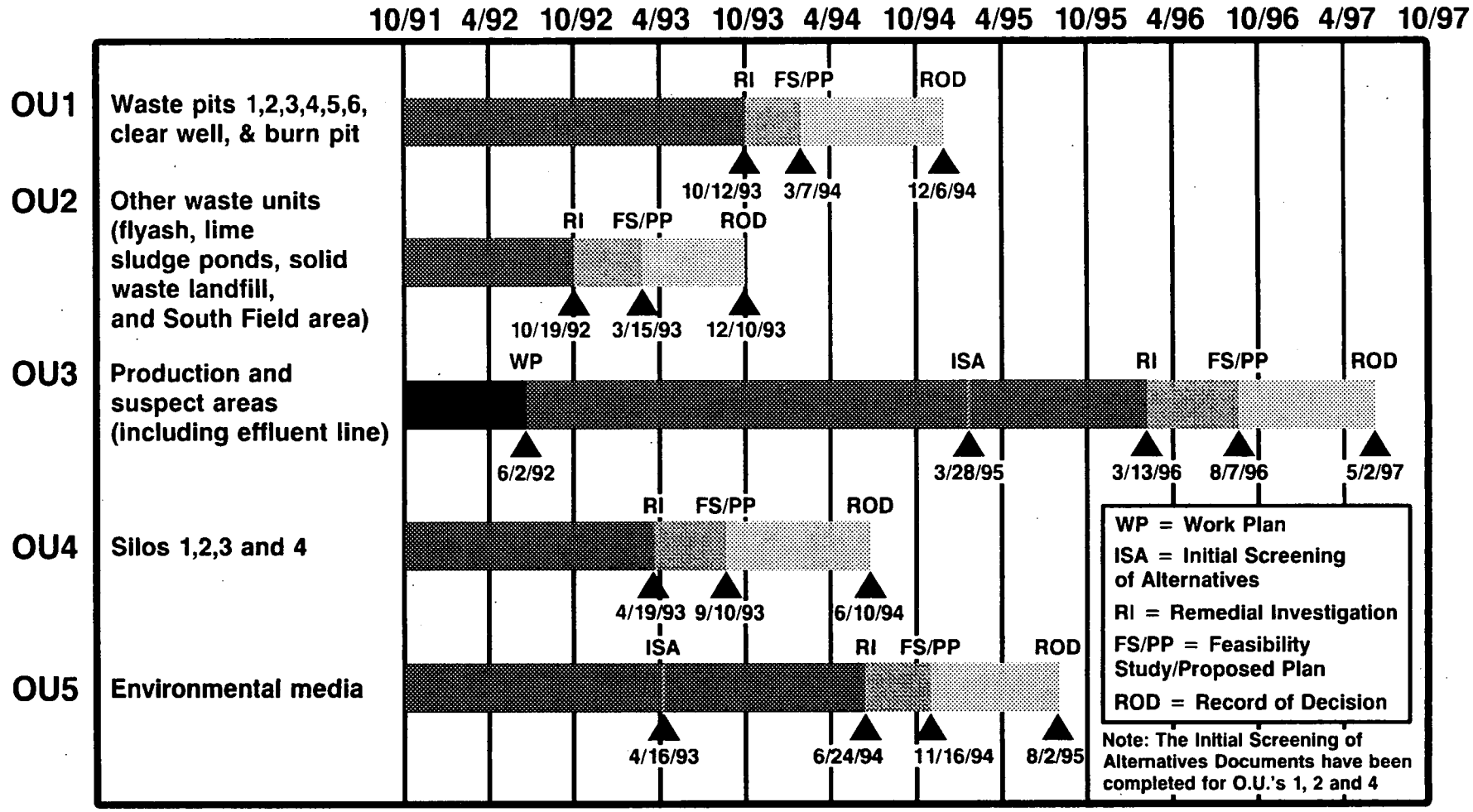
[redacted]OVAL ACTIONS

Identified under the terms of the 1991 Amended Consent Agreement:

1)	Contaminated Water Beneath FEMP Buildings	Ongoing
2)	Waste Pit Area Runoff Control	C
3)	South Groundwater Contamination Plume	UC
4)	Silos 1 and 2	C
5)	K-65 Decant Sump Tank	C
6)	Waste Pit 6 Residues	C
7)	Plant 1 Pad Continuing Release	UC
8)	Inactive Flyash Pile Control	C
9)	Removal of Waste Inventories	Ongoing
10)	Active Flyash Pile Controls	C
11)	Pit 5 Experimental Treatment Facility	C
12)	Safe Shutdown	Ongoing
13)	Plant 1 Ore Silos	UD
14)	Contaminated Soils Adjacent to Sewage Treatment Plant Incinerator	UC
15)	Scrap Metal Piles	UC
16)	Collect Uncontrolled Production Area Runoff (Northeast)	Workplan under review by EPA
17)	Improved Storage of Soil and Debris	Workplan under review by EPA
18)	Control Exposed Material in Pit 5	Workplan under review by EPA
19)	Plant 7 Dismantling	Workplan under development by DOE
20)	Stabilization of Uranyl Nitrate Inventories	Ongoing
21)	Expedited Silo 3 Dust Collector	C
22)	Waste Pit Area Containment Improvement	Workplan under development by DOE
23)	Inactive Flyash Pile	C
24)	Pilot Plant Sump	Workplan under development by DOE
25)	Nitric Acid Tank Car and Area	Workplan under development by DOE
26)	Asbestos Removals (Asbestos Program)	Ongoing
27)	Management of Contaminated Structures at the FEMP	EE/CA under development by DOE

UD = Under Design UC = Under Construction C = Completed EE/CA = Engineering Evaluation/Cost Analysis

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
SCHEDULE OF RI/FS ACTIVITIES



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